

Spreadsheets , Multichoice and short answer revision exercise

1 (qn 4, Vitta, 1, 2009)

Use the following IPO chart for Question 1

Input	Processing	Output
Pizza order, including quantity, cost, toppings.		A receipt detailing the total cost of the order.

Question 1

Customers are charged \$1 per topping only if the number of toppings is greater than 3. Which rule below illustrates this processing?

- A. total cost = if toppings ≤ 3 , (quantity * cost) + number of toppings
- B. total cost = if toppings ≥ 3 , (quantity * cost) + number of toppings
- C. total cost = if toppings > 3 , (quantity * cost) + number of toppings
- D. total cost = if toppings < 3 , (quantity * cost) + number of toppings

2 (6, Vitta, 1, 2009)

An employee of a mobile phone company, Mikhail, is asked by his friend to look up an ex-girlfriend's new phone number in his work system. This may cause

- A. ethical problems concerning the transfer of information.
- B. legal problems concerning the transfer of information.
- C. both legal and ethical problems concerning the transfer of information.
- D. no problem concerning the transfer of information.

3, (10, Vitta, 3, 2009)

How might a validation alert be used?

- A. To inform the user that their data needs testing.
- B. To inform the user that their data is inaccurate.
- C. To inform the user that their data does not fit into a pre-defined range.
- D. To inform the user that their data lacks clarity.

A teacher created a spreadsheet to quickly calculate each student's average mark and corresponding letter grade over three tests.

	A	B	C	D	E	F	G	H	I	J
1		Test 1	Test 2	Test 3	Average	GRADE				
2	Alex	55	64	86	68.33333	B		From	To	Grade
3	Orrin	87	77	56	73.33333	B		0	20	E
4	Claire	88	90	76	84.66667	A		21	40	D
5	Daphne	10	13	18	13.66667	#N/A		41	60	C
6	Egbert	70	56	45	57	#N/A		61	80	B
7	Kostya	56	73	67	65.33333	#N/A		81	100	A

Question 8

The function used in cell F2 was

- A. IF
- B. VLOOKUP
- C. HLOOKUP
- D. AVERAGE

Question 9

The likely cause of the '#N/A' values in column F is

- A. the column is not wide enough.
- B. the teacher used a named range rather than \$ symbols.
- C. the teacher used relative rather than absolute cell addressing.
- D. the teacher used absolute cell naming.

Question 10

The teacher wants the spreadsheet to tell her how many tests each student has passed, where pass is 50% or higher. The formula to put in cell G2 would be

- A. =COUNTIF(">50",B2:D2)
- B. =SUMIF(B2:D2,>=50)
- C. IF(AND(SUM(B2>50),SUM(C2>50),SUM(D2>50))
- D. =COUNTIF(B2:D2,">=50")

Question 11

In which stage of the problem-solving methodology would an appropriate software tool be selected and test data developed?

- A Analysis
- B Design
- C Development
- D Testing

Question 12

The general manager of a company receives reports that provide him with a basic understanding of what is happening within each department.

What is he is most likely to be receiving?

- A Summary reports
- B Detailed reports
- C Exception reports
- D Sample reports

Question 13

In order to ensure that customer details cannot be recorded unless a valid phone number has been entered, the most likely form of electronic validation that would be used is:

- A restricted data entry.
- B range check.
- C existence check.
- D spell check.

Shortanswers:

1 (Question 2, VITTA, 2, 2009)

The canteen at Deanedee Primary School operates only on a Monday at lunchtime by mothers who volunteer their time. They sell a limited range of food at very reasonable prices. To ensure that students do not miss out on their lunch and prevent wastage, the school encourages students to order their lunch via a brown paper bag with the correct money enclosed. Over the past 4 weeks, Deanedee Primary School made the following sales.

	A	B	C	D	E	F	G	H
1	Canteen Food	Sell Price to Students \$	Sales 12 Oct	Sales 19 Oct	Sales 26 Oct	Sales 2 Nov	Total \$	
2	Hot Dog	2.00	291	352	257	389	2578	
3	Sauce Sachet	0.10	373	412	367	439	159.1	
4	Sausage Roll	1.50	91	99	128	76	591	
5	Cup Noodles	2.00	12	32	14	7	130	
6	Plain Milk 300ml	1.00	76	43	78	98	295	
7	Bottle water	1.00	167	188	203	53	611	
8	Fruit cup in Jelly	1.20	54	67	42	56	262.8	
9								
10	Total						4626.9	

- a. Write a formula for cell H2 that will calculate the maximum number of hot dogs sold over the four weeks.

(1 mark)

- b. How can the formula created in Part a. of this question be applied to the other canteen items?

(1 mark)

- c. Based on the data available from the previous four weeks, what formula could be used to calculate the number of food items needed for the following week?

(1 mark)

- d. The formula $=B2*(SUM(C2:F2))$ is entered into cell G2. Provide one method of testing to ensure that the answer is the actual outcome.

(1 mark)

- e. Fill in the following IPO chart for the above spreadsheet.

Input	Processing	Output
		A report showing how much money is made over four weeks including the total.

(2 marks)

f. Describe two differences between a spreadsheet software tool and a database software tool.

	Software Tool
Difference 1	
Difference 2	

(3 marks)

Question 2

The spreadsheet below is used to calculate employees pay.

The Column C shows the type of employee and the value is used to determine the rate of pay per hour.

The various rates are shown in the table **Type** and **Rate**.

The column headed 'Hours' holds the hours worked in a week.

The column headed 'Pay' holds the pay for the week, calculated as Hours * Rate

	A	B	C	D	E	F
1						
2		Name	Type	Hours	Pay	
3		Smith	1	10		
4		Jones	2	20		
5		Wong	1	15		
6						
7		Type	Rate			
8		1	10			
9		2	20			
10						

A state a formula to count the number of employees who work more than 10 hours.

2 marks

B outline a major convention that has not been applied to the data.

1 mark

[illegible]

